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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,195	10/09/2001	Martin Brodt	225/50476	3113
7590 02/27/2006				
CROWELL & MORING, L.L.P.		EXAMINER		
P.O. Box 14300		JIMENEZ, MARC QUEMUEL		
Washington, DC 20044-4300				
		ART UNIT	PAPER NUMBER	
		3726		

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.		Applicant(s)	
	09/972,195		BRODT ET AL.	
	Examiner		Art Unit	
	Marc Jimenez		3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 and 49 is/are pending in the application.
- 4a) Of the above claim(s) 30 and 31 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-22, 24, 26, 29 and 33 is/are allowed.
- 6) ☒ Claim(s) 1-8, 11, 13, 14, 23, 25, 27, 28, 32 and 49 is/are rejected.
- 7) ☒ Claim(s) 9, 10 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 10/7/00. It is noted, however, that applicant has not filed a certified copy of the 100 49 660.1 application as required by 35 U.S.C. 119(b). It is noted that the Image File Wrapper (IFW) that the Examiner is working on does not have a copy of this foreign priority document.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 5** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim

indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 5 recites the broad recitation “less than three seconds”, and the claim also recites “less than two seconds” which is the narrower statement of the range/limitation. Also, claims 11 and 12 recite “20-40 seconds”, and “25-30 seconds” which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1, 4, 7, 32 and 49** are rejected under 35 U.S.C. 102(b) as being anticipated by Cattanach et al. (US4657717).

Cattanach et al. teach a method for the production of a three-dimensionally shaped structural part comprising a basic sheet 3 and at least one smaller locally arranged reinforcing sheet 1, in which the basic sheet 3 is connected, in a flat state or in an incompletely formed preforming state (see figure 1), to the reinforcing sheet 1 at a point predetermined for a subsequent reinforcing point, and the parts of the patched composite sheet structure are

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subsequently jointly formed by an openable and closeable forming tool in a forming press (col. 8, lines 13-17), wherein the patched composite sheet structure is heated before joint forming to a temperature which is above a forming temperature of the material (col. 7, lines 31-33), is formed in a hot state into a desired shape (col. 7, lines 32-33) and is subsequently cooled in the forming tool (col. 7, lines 47-48), which is kept closed, or in a following fixing tool, with the desired forming state being fixed mechanically.

Regarding claim 4, see figure 7 where there are shown “preformed” reinforcing sheets **11** or **10**. The sheets **10 and 11** can be said to have “reinforcing beads” because of the structural shape of the reinforcing sheets **10 and 11**.

Regarding claims 7 and 49, the cooling takes place on the forming tool (col. 7, lines 47-48).

Regarding claim 32, the parts made are for “vehicles” (col. 1, line 13).

7. **Claim 8** is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cattanach et al.

Regarding claim 8, Cattanach et al. teach cooling to at least about 500 degrees C because the limitation “cooled at least to about 500 degrees C” could mean any temperature range between room temperature to 500 degrees C because it is being “cooled”.

Alternatively, the cooling temperature of the sheet is considered an obvious matter of design choice to a person of ordinary skill in the art, at the time of the invention, depending upon the particular material type of metal sheet that is deformed.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 2, 3, 13, and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cattanach et al. in view of Jarnverk (GB1490535).

Cattanach et al. teach that the metal used is superplastic (abstract, line 5 and col. 2, lines 20-22). However, Cattanach et al. do not specifically teach that the material is heated above which the material structure is in an austenitic state.

Jarnverk teaches heating steel to a hardening temperature where the steel will be in austenitic state (page 1, lines 72-75).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Cattanach et al. with the step of heating to a temperature where the steel will be in austenitic state, in light of the teachings of Jarnverk, in order to harden the steel.

Regarding claim 3, Jarnverk teaches heating within a temperature range between 850 and 930 degrees C (col. 2, lines 74-75). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Jarnverk with heating within a temperature range between 850 and 930 degrees C, in light of the teachings of Jarnverk, in order to harden the steel.

Regarding claims 13 and 14, Jarnveck teaches rapid cooling to obtain a martensitic and/or bainitic structure (page 5, lines 8-9). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Cattnach et al. with a martensitic and/or bainitic material structure, in light of the teachings of Jarnveck, in order to strengthen the sheet. The particular temperature range and time it takes to rapidly cool the sheet is considered an obvious matter of design choice to a person of ordinary skill in the art, at the time of the invention depending upon the particular metal sheet used. Some sheets will need to be heated at a higher temperature than other sheets and have different cooling temperatures and times to obtain martensitic and/or bainitic state.

10. **Claims 5, 6, 23, 25, 27, and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cattnach et al.

Cattnach et al. teach the invention cited with the exception of using a heating furnace to heat the sheet and placing in the tool in a time span of less than three seconds or using a furnace in a protective-gas atmosphere. Official notice is taken that it was well known to a person of ordinary skill in the art, at the time of the invention, to have provided a heating furnace to heat and placing the heated sheet in the tool in a time span of less than three seconds, in order to evenly heat the metal sheet and in order to easily deform the metal sheet.

Regarding claim 6, at the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have formed the sheet in 3 to 5 seconds because applicant has not disclosed that forming the sheet in 3 to 5 seconds provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in

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the art, furthermore, would have expected applicant's invention to perform equally well with either the time it takes to deform the sheet as taught by Cattnach et al. or the claimed 3 to 5 seconds because either amount of time to deform perform the same function of forming the sheet equally well depending on the thickness and type of sheet metal used. Therefore, it would have been an obvious matter of design choice to provide Cattnach et al. with the features of claim 6.

Regarding claims 25, 27, and 28, the particular sheet metal used is considered an obvious matter of design choice to a person of ordinary skill in the art, at the time of the invention, depending upon the required strength characteristics of the sheet needed and the application that the sheet is used for. Furthermore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have selected the claimed material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

11. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Cattnach et al.

Cattnach et al. teach the invention cited with the exception of cooling at time of 20-40 seconds.

At the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have cooled at a time window of 20-40 seconds because applicant has not disclosed that a cooling time window of 20-40 seconds provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art,

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furthermore, would have expected applicant's invention to perform equally well with either the amount of time it takes to cool as taught by Cattnach et al. or the claimed 20-40 seconds because either amount of time to cool perform the same function of producing a formed part equally well. The amount of time it takes to cool depends upon the type of metal used and the amount of heat applied. One of ordinary skill in the art, at the time of the invention, would have found it obvious to modify the amount of time it takes to cool depending upon the materials used and the amount of heat need to deform the materials.

Allowable Subject Matter

12. Claims 15-22, 24, 26, 29 and 33 are allowed.
13. Claims 9, 10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

14. Applicant's arguments filed 11/16/05 have been fully considered but they are not persuasive.
15. Acknowledgement is made of applicant's comment regarding the filing of foreign priority papers and the attachment of a post card receipt with the response filed 11/16/05. It is noted, however, that after reviewing the Image File Wrapper (IFW) of the application, there does not appear to be a copy of the foreign priority document in the file. In addition, no copy of the post card receipt was received with the response filed 11/16/05. Applicant is requested to submit

a copy of the Germany 100 49 660.1 foreign priority document so that the IFW file can be updated.

16. Applicant has overcome the 35 U.S.C. 112 second paragraph rejection of claims 1, 11 and 12, however, applicant has not addressed the 35 U.S.C. 112 second paragraph rejection of claim 5 of the previous office action. Therefore, this rejection still stands.

17. Applicant argues that Cattnach et al. teaches composites which employ a thermoformable matrices that are not first connected at predetermined points and that figure 1 shows edges of the sheet 3 that are free from constraint. It is noted, however, that the limitation “connecting the basic sheet, in a flat state or in an incompletely formed preforming state, to the reinforcing sheet at a point predetermined for a subsequent reinforcing point” is broad enough to cover joining by contact. As shown in figure 1 of Cattnach et al., the basic sheet 3 is connected to the reinforcing sheet 1 by contact. Even if the ends of the sheet 3 are free from constraint, the sheet is still in contact with the reinforcing sheet 1.

18. Applicant argues that the sandwich of Cattnach et al. is not heated before deforming. However, Cattnach et al. specifically teach in col. 7, lines 31-33: “For deformation the sandwich is put in contact with a forming tool, heated to a temperature above 340 (degrees) C., and deformed.” Therefore, as after heating, deformation occurs to cause the structure to joint form. Note that deformation occurs gradually from the initial flat state shown in figure 1. The gradual deformation could encompass “joint forming” (the initial deformation) and formed into “a desired shape” (which is the final shape at final deformation). The sheet is gradually formed and is not instantaneously formed.

19. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

20. Since claim 15 is generic and allowable, the depend claims thereon are also allowable. In addition, the withdrawn claims that are depend upon claim 15 are hereby rejoined.

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

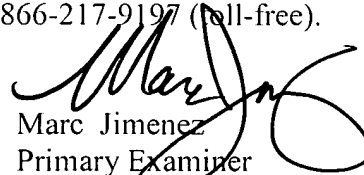
Interviews After Final

21. Applicant note that an interview after a final rejection will not be granted unless the intended purpose and content of the interview is presented briefly, in writing (the agenda of the interview must be in writing) to clarify issues for appeal requiring only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations will be denied. See MPEP 714.13 and 713.09.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (571) 272-4530. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571) 272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Marc Jimenez
Primary Examiner
Art Unit 3726